Memo

Quality Control

Work Order ID 97720 *97720* Page 1 February-21-13 12:41:38 PM D3238-3 *N900040100* Item ID: Accept Setup Start **Revision ID:** Item Name: Plate **Start Date:** 2/21/13 **Cust Item ID:** Required Date: 3/08/13 Reg'd Oty: 6.00 **Customer:** Reference: Run Process Plan: MLJ Date: 13-02-2(Tooling: Approvals: Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # .Plan Reject Accept Reject Insp. Work Center ID Description **Run Hours** Code Qty Qty Number Stamp Draw Nbr **Revision Nbr** D3238 Rev C 100 0.00 FLOW WATER JET *100* 11H. Hanks wit. M 0.00 Waterjet Memo CUT BLANK FILE IN D32382-Deburr if necessary FLOW CNC Waterjet 110 NTIONAL MILLING MACHINE *110* Mill Conv 0.00 Conventional Milling Machine MILL SERRATIONS AS PER DWG D3238 USING DT8934 QC2- Inspect parts off machine FAI/FAIB 0.00 120 *120*

0.00

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		***	DQA:	Date:	
NCR: Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE				
		QA	Closed:	Date:	

CAT Closed. Date.														
Work Orde	er:					DISPOSITION	١			AGAINST	DE	PARTMENT	PROCESS	
						Rework			Skid-tube	Crosstube			Water Jet	Engineering
Part N	lo.					Scrap			Machining	Small Fab		Prod	d. Eng. Coor.	Quality
T ditti	•••					Use-as-is			noforming	Finishing	_		e/Packaging	Other
NCR N	J۸					Work Order Update			Large Fab	Composite	$\overline{}$,	Supplier	†
									8					
Root					Descri	ption of work order update	In	iitial	Ac	tion		Sign &		
Cause		ate	Step	Qty	(or Non-conformance	Chie	ef Eng	Desc	ription		Date	Verification	QC Inspector
Doc/Data														
Equip/Tooling													•	
Operator							}							
Material														
Setup	H													
Other														
Process														
Supplier														
Training			į											
Unapproved														
						F.A.	AULT	CATE	GORY					
Landir	ng Gear					General							_	·
	Ber	nding				Bend		Grain				Ovalized		Pressure/Forced
	Cer	itre No	t Concer	ntric to (o/s	BOM/Route	H	Hardwa	re			Over/Under	tolerance	Temperature/Cure
	Cra	cks				Broken/Damaged	Πı	nspecti	on Incomplete			Part Incorred	ct [_	Weld
	Cru	shed/C	rimped.			Burrs	Πı	nstruct	ions Incomplete/	Unclear		Part Lost/Mi	ssing	Wrong Stock Pulled
	Crushed/Crimped. Cuffs					Contamination		Mainte	nance			Part Moved	_	_
	Heat Treat					Countersink	Пr	Mislabe	led			Positioned V	Vrong	
Inspection Strip in Tube				Cut Too Short	\prod_{i}	Misreac	1			Power Loss/	Surge	Other		
Ripples in Bend				Drill Holes	Offset									
Torque Waves in Extrusion					,	Drawing	Out of Calibration							
Turning Sequence						Finish	Out of Sequence							
	Turning Sequence Wave/Twist in Tube					Folio		Outside Dimensions						

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Work Orde February-21-13				*9772			Page 2					
Revision ID:	D3238-3 Plate			Accept	*N900	040	100)* s	etup St	art op		S1* S2*
	2/21/13 3/08/13	Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item I						141	
Approvals:		lan:	Date:	Tooling: SPC (Y/N):		ate:		R		art op		२1* २2*
Sequence ID/ Work Center II 130 *130* Waterjet FLOW CNC Waterjet		Operation Description FLOW WATER JET Memo I-Cut as per Deburr if ne	Dwg D3238 Dwg Rev:	Set Up/ Run Hours 0.00 0.00 Prog Rev:	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty		eject umber	Insp. Stamp JM3-6-
140 *140* QC Quality Control		QC2- Inspect parts off m Memo	nachine FAI/FAIB	0.00				_12	6			JM36:
150 *150* QC		QC8- Inspect parts - seco	ond check	0.00 3 6 2				Ç		· .		

Quality Control

		DQA:	Date:	
ICR: Ves / No	WORK ORDER NON-CONFORMANCE / UPDATE			

NCR: `	Yes	/ No				WORK ORDER NON-	COI	NFORI	VIANCE / UP		QA Closed:	Dat	e:
Work Orde	or.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part I	- . No.					Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root		-			Descri	ption of work order update	1	Initial	Ac	tion	Sign &		
Cause		Date	Step	Qty	. (or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved	Tooling												
			<u> </u>		• .		FAUL	T CATE	GORY				
Landi	ng G	iear		·		General					•		
Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion						Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misread Offset	ion Incomplete ions Incomplete/ enance eled		Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
ì	ΠÍ	Torque W	aves in E	xtrusio	n l	Drawing	1	Out of	Calibration				

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish Folio

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Work Ord February-21-13				*97	720*			Page 3
Item ID: Revision ID:	D3238-3			Accept	*N900040100)*	Setup Star	147.2.1
Item Name: Start Date: Required Date: Reference:	Plate 2/21/13 3/08/13	Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item ID: Customer:			
Approvals:		n:		Tooling: SPC (Y/N):	Date:		Run Star Stop	"NRT"
Sequence ID/ Work Center II 160 *160* HandFinish Hand Finishing	D	Operation Description Chemical Conversion Co	oat per QSI005 4.1	Set Up/ Run Hours 0.00	Tool ID Tool # Plan Code	Accep Qty	Qty	Reject Insp. Number Stamp
170 *170* QC Quality Control	·	QC3 Inspect Part Finish Memo		0.00	G-3			
180 *180* Packaging		Identify as per dwg & St	ock Location 3634	0.00		/2x		

Packaging

									DQA:	Date:	
NCR: Yes	/ No				WORK ORDER NON-C	QA Closed:	Date:				
Work Order:					DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part No. NCR No.					Rework Scrap Use-as-is Work Order Update	Thern	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	Initial	Act	tion	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling									<u> </u>	` .	
Operator			1							,	4
Material											
Setup				[

FAULT CATEGORY Landing Gear General Grain Pressure/Forced Bend Ovalized Bending BOM/Route Over/Under tolerance Temperature/Cure Centre Not Concentric to O/S Hardware Weld Broken/Damaged Inspection Incomplete Part Incorrect Cracks Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Crushed/Crimped. Burrs Cuffs Contamination Maintenance Part Moved Mislabeled Positioned Wrong Heat Treat Countersink Other Power Loss/Surge Inspection Strip in Tube Cut Too Short Misread **Drill Holes** Ripples in Bend Offset Out of Calibration Torque Waves in Extrusion Drawing Turning Sequence Finish Out of Sequence Folio **Outside Dimensions**

Wave/Twist in Tube

Other Process Supplier Training Unapproved

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Work Ord February-21-13							Page 4						
Item ID: Revision ID: Item Name:	D3238-3			Accept	*N900	040	100)*	Setup	Start Stop	*N:	S1* S2*	
Start Date: Required Date Reference:	2/21/13 : 3/08/13	Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item II Customer:	D:							
Approvals:	Process Pl	an:	Date:	Tooling: SPC (Y/N):		te:			Run	Start Stop		R1* R2*	
Sequence ID/ Work Center I 190 *1QA* QC Quality Control	D	Operation Description QC21- Final Inspection Memo	Work Order Release	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Re Qt	-	Reject Number	Insp. Stamp	

pl 13-de-4

			DQA:	Date:	
			·		
ICR.	Ves / No	WORK ORDER NON-CONFORMANCE / UPDATE			

											QA Closed:	Date	e:
Work Orde	er.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part I	No.					Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				·	Descri	ption of work order update	In	nitial	A	ction	Sign &	**	
Cause		Date	Step	Qty		or Non-conformance	Chi	ef Eng	Des	cription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling												,	
Operator							1						
Material													
Setup													
Other	er 🔲												
Process													
Supplier	<u> </u>												
Training	_												
Unapproved			<u> </u>		<u>. </u>		1				<u> </u>	<u> </u>	
ļ							AULI	CATE	GUKY				
Landi	_	7				General Bend	ГП,	Grain		_	Ovalized	Γ	Pressure/Forced
	-	Bending Centre No	ot Conco	atric to	~/s	BOM/Route	\vdash	Grain Hardwa	ro	 	Over/Under	tolerance	Temperature/Cure
	\vdash	Cracks	or concei	itric to),3 -	Broken/Damaged	-		on Incomplete	-	Part Incorre	F	Weld
	-	1	Crimned		-	Burrs		•	ions Incomplete	·/Unclear	Part Lost/M	<u>+</u>	Wrong Stock Pulled
	Crushed/Crimped. Cuffs					Contamination	\vdash	Mainte	·	7 01101011	Part Moved		
	-	Heat Trea	at		-	Countersink	\vdash	Mislabe			Positioned V		
	<u> </u>	Inspectio		Tube		Cut Too Short	├ ──┤	Misread			Power Loss/	· ·	Other
	H	Ripples in				Drill Holes	\vdash	Offset		<u>L</u>	.	- L	
		Torque W		xtrusio	,	Drawing			Calibration				
Turning Sequence Finis						Finish		Out of 9	Sequence				
		Wave/Tw				Folio	П	Outside	Dimensions				

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Work Order ID:

97720

Parent Item:

D3238-3

Parent Item Name:

Plate

Start Date: 2/21/13

Required Date: 3/08/13

Page 1

Start Qty: 6.00

Required Qty: 6.00

Comments:

IPP Rev:A New Issue 06-10-20 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.080 2024-T3 .080 sheet	, <u>, , , , , , , , , , , , , , , , , , </u>	Purchased	No		· - · · · · · · · · · · · · · · · · · ·	100	sf	406.8900	0.012	0.0757896	10.	ece.	JMB-6-3
				Location		Loc Oty	<u>L</u> c	oc Code			1		
				MAT022		406.89							
				105	411	12							
				109	424	8							
				113	796	10							
				114	025	3.4					•		
				117	392	38.2							
				118	180	54							
				119	117	41.15			119	17.			
				120	989	79.34							
			1	123	217	160.8							

Blank Plates

											DQA:	Date	≘:_	
NCR:	Yes	/ No				WORK ORDER NON-O	100	NFORM	AANCE / UPDATE					
										·· ·	QA Closed:	Date	e:	
Mork Ord	٥					DISPOSITION			A	GAINST DEI	PARTMENT	/PROCESS		•
Work Ord	er:					Rework]		Skid-tube Cro	osstube		Water Jet		Engineering
Part	Nο					Scrap		1	—	nall Fab	Pro	d. Eng. Coor.	ㅓ	Quality
						Use-as-is	1	1	Ŭ ⊢	inishing		re/Packaging	┪	Other
NCR	No.					Work Order Update			Large Fab Cor	mposite 🔲		Supplier		
														····
Root						ption of work order update	1	Initial	Action		Sign &			
Cause		Date	Step	Qty		or Non-conformance	Cr	nief Eng	Description	n	Date	Verification	\dashv	QC Inspector
Doc/Data	<u> </u>		1											
Equip/Tooling												ļ ·		
Operator								İ					Ì	
Material	\vdash													
Setup	\vdash													
Other	<u> </u>				والبود									
Process														
Supplier	-					,								
Training	\vdash											İ		
Unapproved	<u> </u>	<u> </u>	<u> </u>	<u> </u>		Ε	<u> </u> 	LT CATE	SORV		<u> </u>	<u> </u>		
Landi	Landing Gear General							- CATE						
	Bending				Bend	Г	Grain			Ovalized	Γ		Pressure/Forced	
Centre Not Concentric to O/S						BOM/Route	\vdash	Hardwa	re	ļ	Over/Under	tolerance		Temperature/Cure
Cracks						Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct		Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/Unclea	ar 📄	Part Lost/M	issing		Wrong Stock Pulled
Cuffs						Contamination		Mainte	nance		Part Moved	_		•
Heat Treat						Countersink	Г	Mislabe	led		Positioned \	N rong		
	Inspection Strip in Tube					Cut Too Short	Misread				Power Loss/Surge			Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Drill Holes

Drawing

Finish

Folio

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

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DART AEROSPACE LTD	Work Order:	97+20
Description: Plate	Part Number:	D3238-3
Inspection Dwg: D3238 Rev: C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

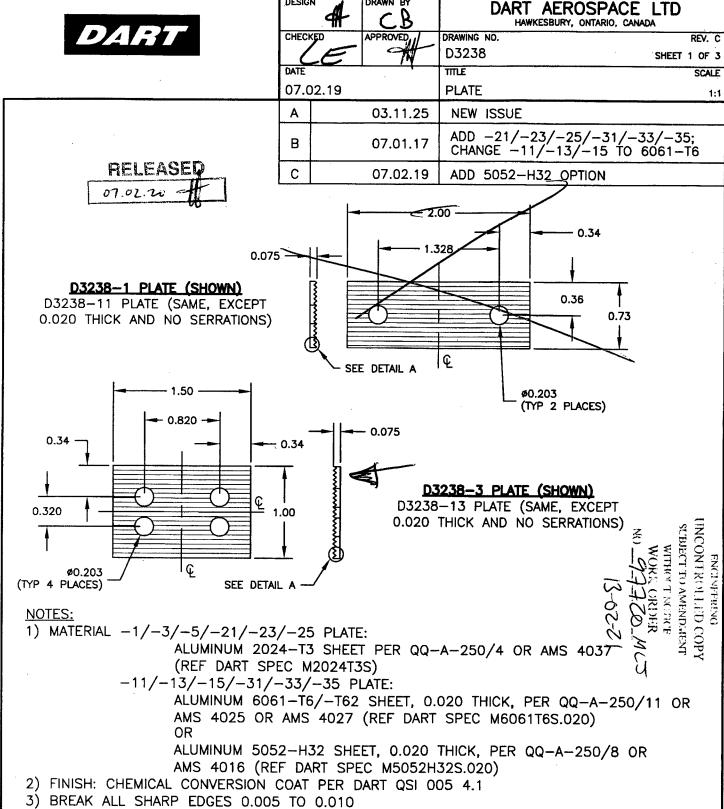
X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.50	+/-0.030	1.505	1		ν	Jemoi
1.00	+/-0.030	1.006	Į	,	V	
0.34	+/-0.030	0.347	_		. V	
0.34	+/-0.030	0.342"	-		V	
0.820	+/-0.010	0.342" 0.826"	,		ν	
Ø0.203	+0.005/-0.001	0,203"	_		V	
0.320	+/-0.010	0.322	_		V	
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					-	

Measured by:	Jm	Audited by:	21	Prototype Approval:	N/A
Date:	13-6-3	Date:	13.6.3	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	07.01.17	New Issue	KJ/JLM 1.A	
В	07.02.23	Dwg Rev. updated	KJ/JLM	B





DESIGN

DRAWN BY

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5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

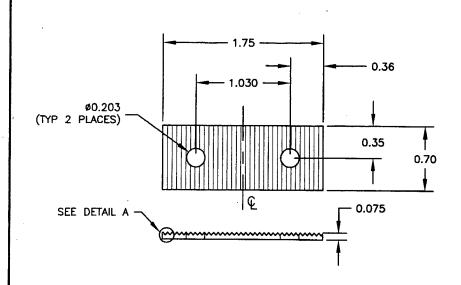
4) ALL DIMENSIONS ARE IN INCHES

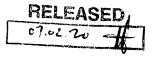
6) SEE SHEET 3 FOR DETAIL A 7) PARTS ARE SYMMETRIC ABOUT &

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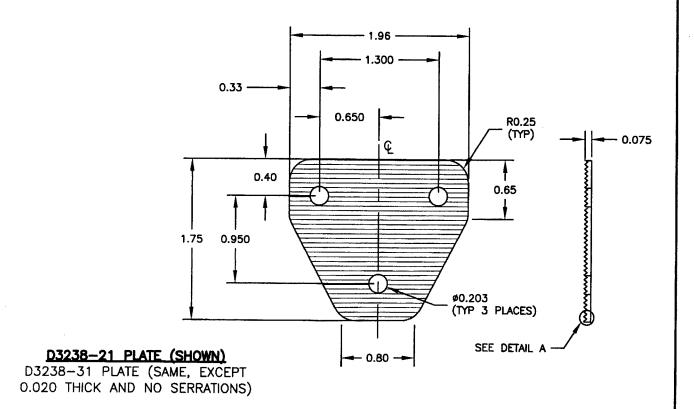


DESIGN #	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED	APPROVED ///	DRAWING NO.	REV. C	
1	-#	D3238	SHEET 2 OF 3	
DATE		TITLE	SCALE	
07.02.19		PLATE	1:1	





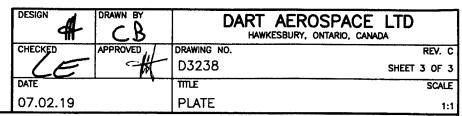
D3238-5 PLATE (SHOWN) D3238-15 PLATE (SAME, EXCEPT 0.020 THICK AND NO SERRATIONS)

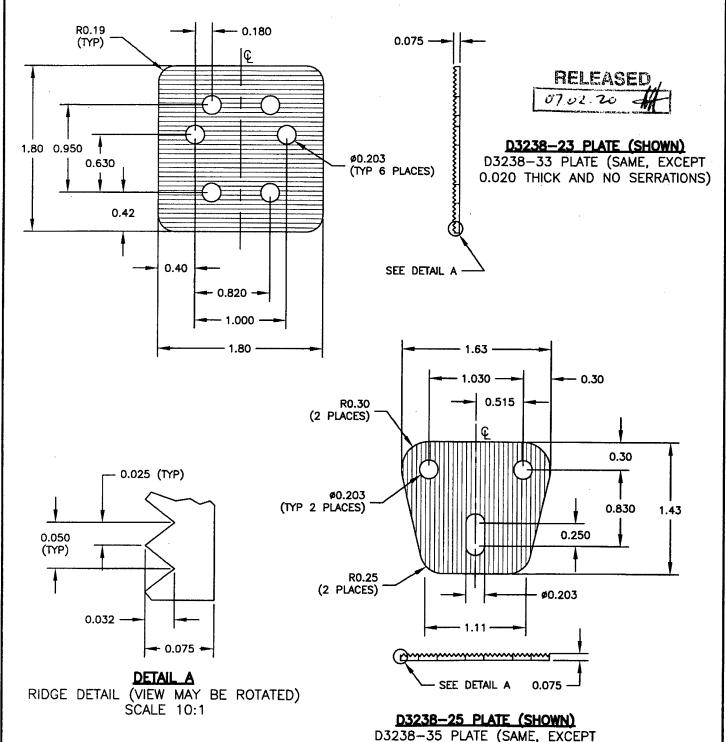


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